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CLAIMS

What is claimed is:

1. A microfluidic component comprising a laminated assembly comprising a substrate and a top plate, where the substrate and the top plate define therebetween a minimum of one collection chamber and a minimum of two connection channels connected to the minimum of one collection chamber.
2. The microfluidic component of claim 1 further comprising a minimum of two valves, one each constructed within the minimum of two connection channels.
3. The microfluidic component of claim 1 further comprising a minimum of two additional separated collection chambers defined between the substrate and the top plate one each connected to an end of each of the minimum of two connection channels opposite the minimum of one collection chamber.
4. The microfluidic component of claim 1 wherein the minimum of two connection channels is four connection channels.
5. The microfluidic component of claim 4 wherein the four connection channels are connected to four additional separated collection chambers defined between the substrate and the top plate.

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6. The microfluidic component of claim 1 wherein the minimum of two connection channels is at least four connection channels.
7. The microfluidic component of claim 1 further comprising a pump within the collection chamber.
8. A method for fabricating a microfluidic component comprising:  
    providing a substrate and a top plate; and  
    assembling the substrate to the top plate such as to provide a laminated assembly defining between the substrate and the top plate a minimum of one collection chamber and a minimum of two connection channels connected to the minimum of one collection chamber.
9. The method of claim 8 further comprising constructing a minimum of two valves within the microfluidic component, one each constructed within the minimum of two connection channels.
10. The method of claim 8 further comprising defining a minimum of two additional separated collection chambers between the substrate and the top plate one each connected to an end of each of the minimum of two connection channels opposite the minimum of one collection chamber.
11. The method of claim 8 wherein the minimum of two connection channels is four connection channels.

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12. The method of claim 11 wherein the four connection channels are connected to four additional separated collection chambers defined interposed between the substrate and the top plate.

13. The method of claim 8 wherein the minimum of two connection channels is at least four connection channels.

14. The method of claim 8 further comprising constructing a pump within the collection chamber.

15. A method for operating a microfluidic component comprising:  
providing a microfluidic component comprising a laminated assembly comprising a substrate and a top plate, where the substrate and the top plate define therebetween a minimum of one collection chamber and a minimum of two connection channels connected to the minimum of one collection chamber;

introducing a fluid into the minimum of one collection chamber; and

pumping the fluid from the minimum of one collection chamber into the minimum of two connection channels.

16. The method of claim 15 wherein the microfluidic component further comprises a minimum of two valves, one each constructed within the minimum of two connection channels.

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17. The method of claim 15 wherein the microfluidic component further comprises a minimum of two additional separated collection chambers defined between the substrate and the top plate one each connected to an end of each of the minimum of two connection channels opposite the minimum of one collection chamber.

18. The method of claim 15 wherein the minimum of two connection channels is four connection channels.

19. The method of claim 18 wherein the four connection channels are connected to four additional separated collection chambers defined between the substrate and the top plate.

20. The method of claim 15 wherein the minimum of two connection channels is at least four connection channels.